AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims:

1. (Withdrawn) A method for producing an image predictive of a person's appearance resulting from following a regimen of diet, exercise, or both diet and exercise, said method comprising the steps of:

    receiving a first image of a person in a pre-regimen condition;

    receiving a first data set of body measurements for said person;

    receiving a second data set indicating at least one goal for results of said regimen;

    segmenting said first image into a plurality of body segment images;

    creating a modified set of body segment images by modifying at least one of said plurality of body segment images based upon said first and second data sets in a manner representative of predictable fat loss resulting from following said regimen; and

    constructing a second image predictive of the appearance of said person in a post-regimen condition using said modified set of body segment images.

2. (Withdrawn) The method of claim 1 wherein said step of receiving a first data set of body measurements comprises receiving a weight measurement for said person.

3. (Withdrawn) The method of claim 1 wherein said step of receiving a first data set of body measurements comprises receiving at least one body fat measurement for said person.

4. (Withdrawn) The method of claim 3 wherein said step of receiving at least one body fat measurement comprises receiving at least one skin fold measurement.

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5. (Withdrawn) The method of claim 4 wherein said at least one skin fold measurement is associated with a body part selected from the group consisting of neck, bicep, tricep, chest, subscapula, abdomen, hip, thigh, and calf.

6. (Withdrawn) The method of claim 1 wherein said step of receiving a second data set comprises receiving a target weight value.

7. (Withdrawn) The method of claim 1 wherein said step of receiving a second data set comprises receiving a target body fat value.

8. (Withdrawn) The method of claim 1 wherein said creating step comprises the steps of:

determining an initial fat layer thickness associated with said at least one of said plurality of body segment images;

determining a reduced fat layer thickness associated with said at least one of said plurality of body segment images based upon predicted fat loss from said initial fat layer thickness; and

determining a final body segment size associated with said at least one of said plurality of body segment images based upon said first data set and said reduced fat layer thickness.

9. (Withdrawn) The method of claim 1 wherein said creating step comprises calculating a final circumference of a body part associated with said at least one of said plurality of body segment images according to the following equation:

$$C_{after} = 2 \bullet \pi \bullet \{ [C_{before}/2\pi - (2 \bullet \text{skin\_fold\_measurement})]$$
$$+ [2 \bullet \text{skin\_fold\_measurement} \bullet (1\text{-}P) \bullet V] \}$$

wherein

C_{after} represents the circumference of said body part in said post-regimen condition,

C_{before} represents the circumference of said body part in said pre-regimen condition,

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skin_fold_measurement represents a skin fold measurement associated with said body part in said pre-regimen condition,

P represents an amount of desired fat loss expressed in decimal form, and

V represents a constant associated with said body part.

10. (Withdrawn) The method of claim 9 wherein said body part is selected from the group consisting of neck, bicep, tricep, chest, subscapula, abdomen, hip, thigh, and calf, and wherein said constant V is respectively selected from the group consisting of 1, 1.1, 1.5, 1.8, 1.7, 2.5, 1.9, 2.0, and 1.2.

11. (Withdrawn) A computer readable medium for producing images predictive of a person's appearance resulting from following a regimen of diet, exercise, or both diet and exercise, said computer readable medium comprising instructions for:

receiving a first image of a person in a pre-regimen condition;

receiving a first data set of body measurements for said person;

receiving a second data set indicating at least one goal for results of said regimen;

segmenting said first image into a plurality of body segment images;

creating a modified set of body segment images by modifying at least one of said plurality of body segment images based upon said first and second data sets in a manner representative of predictable fat loss resulting from following said regimen; and

constructing a second image predictive of the appearance of said person in a post-regimen condition using said modified set of body segment images.

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12. (Withdrawn) The computer readable medium of claim 11 wherein said instructions for receiving a first data set of body measurements include instructions for receiving a weight measurement for said person.

13. (Withdrawn) The computer readable medium of claim 11 wherein said instructions for receiving a first data set of body measurements include instructions for receiving at least one body fat measurement for said person.

14. (Withdrawn) The computer readable medium of claim 13 wherein said instructions for receiving at least one body fat measurement include instructions for receiving at least one skin fold measurement.

15. (Withdrawn) The computer readable medium of claim 14 wherein said at least one skin fold measurement is associated with a body part selected from the group consisting of neck, bicep, tricep, chest, subscapula, abdomen, hip, thigh, and calf.

16. (Withdrawn) The computer readable medium of claim 11 wherein said instructions for receiving a second data set include instructions for receiving a target weight value.

17. (Withdrawn) The computer readable medium of claim 11 wherein said instructions for receiving a second data set include instructions for receiving a target body fat value.

18. (Withdrawn) The computer readable medium of claim 11 wherein said instructions for creating a modified set of body segment images by modifying at least one of said plurality of body segment images include instructions for:

       determining an initial fat layer thickness associated with said at least one of said plurality of body segment images;

determining a reduced fat layer thickness associated with said at least one of said plurality of body segment images based upon predicted fat loss; and

determining a final body segment size associated with said at least one of said plurality of body segment images based upon said first data set and said reduced fat layer thickness.

19. (Withdrawn) The computer readable medium of claim 11 wherein said instructions for creating include instructions for calculating a final circumference of a body part associated with said at least one of said plurality of body segment images according to the following equation:

$$C_{after} = 2 \bullet \pi \bullet \{ [C_{before}/2\pi - (2 \bullet skin\_fold\_measurement)]$$
$$+ [2 \bullet skin\_fold\_measurement \bullet (1-P) \bullet V] \}$$

wherein

C_{after} represents the circumference of said body part in said post-regimen condition,

C_{before} represents the circumference of said body part in said pre-regimen condition,

skin_fold_measurement represents a skin fold measurement associated with said body part in said pre-regimen condition,

P represents an amount of desired fat loss expressed in decimal form, and

V represents a constant associated with said body part.

20. (Withdrawn) The computer readable medium of claim 19 wherein said body part is selected from the group consisting of neck, bicep, tricep, chest, subscapula, abdomen, hip, thigh, and calf, and wherein said constant V is respectively selected from the group consisting of 1, 1.1, 1.5, 1.8, 1.7, 2.5, 1.9, 2.0, and 1.2.

21. (Withdrawn) A method for attracting and retaining clients of health and fitness service providers, comprising the steps of:

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receiving a first image representative of a client in a pre-regimen condition, a set of measurements associated with said client, and at least one goal desired by said client from following a regimen of diet, exercise, or diet and exercise;

segmenting said first image into a plurality of body segment images;

modifying at least one of said plurality of body segment images based upon said set of measurements and said at least one goal in a manner representative of predictable fat loss resulting from following said regimen; and

constructing a second image predictive of the appearance of said client in a post-regimen condition using the results of said modifying step, thereby allowing said client to visualize results attainable through said regimen.

22. (Withdrawn) The method of claim 21 wherein said receiving step comprises communication of information from said client through a network.

23. (Withdrawn) The method of claim 22 wherein said network comprises the Internet.

24. (Withdrawn) The method of claim 21 wherein said set of measurements comprises a weight measurement.

25. (Withdrawn) The method of claim 21 wherein said set of measurements comprises at least one fat measurement.

26. (Withdrawn) The method of claim 25 wherein said at least one fat measurement comprises at least one skin fold measurement.

27. (Withdrawn) The method of claim 26 wherein said at least one skin fold measurement is associated with a body part selected from the group consisting of neck, bicep, tricep, chest, subscapula, abdomen, hip, thigh, and calf.

28. (Currently Amended) A method for producing an image predictive of a person's appearance resulting from following a prescribed regimen, said method comprising ~~the steps of~~:

receiving a first data set associated with said person;

said first data set comprising an initial weight measurement, a height measurement, a gender designation, and an age;

creating a first image representative of said person in a pre-regimen condition by modifying a generic image based on said first data set;

receiving a second data set comprising at least one goal desired from said regimen; and

creating a second image representative of said person in a post-regimen condition by modifying said first image based on said second data set.

29. (Currently Amended) The method of claim 28 further comprising ~~the step of~~ calculating an ideal weight and an estimated body fat percentage for said person.

30. (Original) The method of claim 29 wherein said estimated body fat percentage is calculated according to the following equation:

$$Body\ Fat\ Percentage = (\ Essential\ Fat + Excess\ Fat\ )\ /\ Body\ Weight$$

said Essential Fat being calculated according to the following equation:

$$Essential\ Fat = ((\ Age \times 0.001625\ ) + 0.0425\ )\ (\ Ideal\ Weight\ ).$$

31. (Currently Amended) The method of claim 28 wherein said ~~step of~~ creating a second image comprises calculation of an age factor.

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32. (Original) The method of claim 31 wherein said age factor is calculated according to the following equation:

$$\text{Age Factor} = ((-0.000438)\text{Age}^2 + (0.0439)\text{Age}) - 1.$$

33. (Original) The method of claim 28 wherein said at least one goal is selected from the group consisting of weight loss, muscle gain, and a combination of weight loss and muscle gain.

34. (Original) The method of claim 28 wherein said regimen comprises at least one of the following: resistance exercise, cardiovascular exercise, nutrition planning, dietary supplement intake, and personal training.

35. (Original) The method of claim 28 wherein said at least one goal comprises muscle gain and wherein said muscle gain is calculated based on at least one of the following factors:

    a base muscle gain factor;

    a supplement boost factor;

    a resistance compliance factor;

    an age factor;

    a nutrition factor; and

    a gender factor.

36. (Original) The method of claim 35 wherein said base muscle gain factor is selected from the group consisting of:

    1/725 if said goal comprises muscle gain only;

    1/1087 if said goal comprises muscle gain and fat loss;

    1/1450 if said goal comprises fat loss only or health maintenance.

37. (Original) The method of claim 35 wherein a supplement boost is calculated according to the following equation:

Supplement Boost = 1.0 + ((Days of Resistance Training / 7 days)

× (Days of Supplementation / 7 days)

× Supplement Boost Factor).

38. (Original) The method of claim 35 wherein said resistance compliance factor is calculated according to one of the following:

(a) if said regimen comprises a number of days of resistance training per week which is greater than 4,

Resistance Compliance = (Days of Resistance Training / 3) + 2.56667

(b) if said regimen comprises a number of days of resistance training per week which is less than or equal to 4,

Resistance Compliance = Days of Resistance Training.

39. (Original) The method of claim 35 wherein said age factor is calculated according to the following equation:

Age Factor = Age^2 (0.009835) + Age (-1.84086) + 84.54923.

40. (Original) The method of claim 35 wherein said nutrition factor is calculated according to the following equation:

Nutrition Factor = Days/Week on Nutrition Plan (0.035714286) + 0.75.

41. (Original) The method of claim 35 wherein said gender factor is calculated according to one of the following equations:

(a) if said person is a female,

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$$\text{Gender Factor}_{female} = 0.55;$$

(b) if said person is a male,

$$\text{Gender Factor}_{male} = 1.0.$$

42. (Original) The method of claim 35 wherein said muscle gain is calculated according to the following equation:

$$\text{Muscle Gained / Week} = (\text{Resistance Compliance} \times \text{Base Muscle Gain Factor})$$

$$\times \text{Supplement Boost}$$

$$\times \text{Age Factor}$$

$$\times \text{Nutrition Factor}$$

$$\times \text{Gender Factor.}$$

43. (Currently Amended) The method of claim 29 further comprising ~~the step of~~ recalculating said body fat percentage to account for fat loss or muscle gain resulting from said regimen.

44. (Currently Amended) The method of claim 28 further comprising ~~the step of~~ estimating at least one health risk for said person in said pre-regimen condition.

45. (Original) The method of claim 44 wherein said at least one health risk is selected from the group consisting of diabetes, heart disease, and stroke.

46. (Currently Amended) The method of claim 28 further comprising ~~the step of~~ estimating at least one health risk for said person in said post-regimen condition.

47. (Original) The method of claim 46 wherein said at least one health risk is selected from the group consisting of diabetes, heart disease, and stroke.

48. (Withdrawn) A method of estimating a person's risk of diabetes, comprising the following steps:

receiving a first data set for said person, said first data set comprising

a weight,

a height,

an age,

a gender designation,

a designation regarding family history of diabetes, and

a designation regarding the person's level of exercise;

calculating the person's body mass index (BMI) according to the equation

BMI = (Weight × 704.5) / Height × Height;

calculating the person's BMI factor according to the equation

BMI Factor = (BMI – 25) × 7.5;

calculating the person's acceptable body fat according to the equation

Acceptable Body Fat = (Age × 0.0667 – 1.3333) + 14 (if said person is male);

Acceptable Body Fat = (Age × 0.0667 – 1.3333) + 17 (if said person is female);

calculating the person's excess body fat factor according to the equation

Excess Body Fat Factor = % Body Fat – Acceptable Body Fat;

calculating the person's obesity factor according to the equation

Obesity Factor = (BMI Factor + Excess Body Fat Factor) / 2;

scaling said obesity factor according to the equation

Body Fat Scaler = [4 × (% Body Fat) – 28] × (Obesity Factor);

magnifying said Body Fat Scaler according to the equation

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Magnifier = 1.25 × Body Fat Scaler;

assigning a family history value, said family history value being equal to zero if said person has no family history of diabetes, said family history value being equal to 15 if said person has a family history of diabetes;

assigning an exercise value, said exercise value being equal to zero if said person is exercising, said exercise value being equal to 25 if said person is not exercising;

assigning an age value according to the equation

Age value = (Age/5) − 7   (if (Age/5) − 7 is greater than or equal to zero)

Age value = 0   (if (Age/5) − 7 is less than zero);

calculating said risk of diabetes according to the equation

Diabetes Risk = Family History Value + Exercise Value + Age Value + Magnifier.

49. (Withdrawn) A method of estimating a person's risk of heart disease, comprising the following steps:

receiving a first data set for said person, said first data set comprising

a weight,

a height,

an age,

a gender designation,

a designation regarding family history of heart disease,

a designation regarding family history of diabetes,

a designation regarding the person's level of exercise,

a designation regarding the person's blood pressure,

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a designation regarding the person's smoking activity,

a designation regarding the person's cholesterol level;

calculating the person's body mass index (BMI) according to the equation

BMI = (Weight × 704.5) / Height × Height;

calculating the person's BMI factor according to the equation

BMI Factor = (BMI − 25) × 7.5;

calculating the person's acceptable body fat according to the equation

Acceptable Body Fat = (Age × 0.0667 − 1.3333) + 14 (if said person is male);

Acceptable Body Fat = (Age × 0.0667 − 1.3333) + 17 (if said person is female);

calculating the person's excess body fat factor according to the equation

Excess Body Fat Factor = % Body Fat − Acceptable Body Fat;

calculating the person's obesity factor according to the equation

Obesity Factor = (BMI Factor + Excess Body Fat Factor) / 2;

scaling said obesity factor according to the equation

Body Fat Scaler = [4 × (% Body Fat) − 28] × (Obesity Factor);

assigning an age value according to the equation

Age Value = Age − 59 (if (Age − 59) is greater than or equal to zero)

Age Value = 0   (if (Age − 59) is less than zero);

assigning a heart disease family history value, said heart disease family history value being equal to zero if said person has no family history of heart disease, said heart disease family history value being equal to 15 if said person has a family history of heart disease;

assigning a diabetes family history value, said diabetes family history value being equal to zero if said person has no family history of diabetes, said diabetes family history value being equal to 5 if said person has a family history of diabetes;

assigning a smoking value, said smoking value being equal to zero if said person is not smoking, said smoking value being equal to 25 if said person is smoking;

assigning a gender value, said gender value being equal to zero if said person is female, said gender value being equal to 5 if said person is male;

assigning a blood pressure value, said blood pressure value being equal to zero if said person does not have high blood pressure, said blood pressure value being equal to 15 if said person has high blood pressure;

assigning an exercise value, said exercise value being equal to zero if said person is exercising, said exercise value being equal to 10 if said person is not exercising;

assigning a cholesterol value, said cholesterol value being equal to zero if said person does not have high cholesterol, said cholesterol value being equal to 10 if said person has high cholesterol;

calculating said risk of heart disease according to the equation

Heart Disease Risk = Age Value

+ Heart Disease Family History Value

+ Diabetes Family History Value

+ Smoking Value

+ Gender Value

+ Blood Pressure Value

+ Exercise Value

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+ Cholesterol Value

+ Body Fat Scaler.

50. (Withdrawn) A method of estimating a person's risk of stroke, comprising the following steps:

receiving a first data set for said person, said first data set comprising

a weight,

a height,

an age,

a gender designation,

a designation regarding family history of stroke,

a designation regarding family history of diabetes,

a designation regarding the person's smoking activity,

a designation regarding the person's level of exercise,

a designation regarding the person's blood pressure,

a designation regarding the person's cholesterol level;

calculating the person's body mass index (BMI) according to the equation

$$BMI = (Weight \times 704.5) / Height \times Height;$$

calculating the person's BMI factor according to the equation

$$BMI\ Factor = (BMI - 25) \times 7.5;$$

calculating the person's acceptable body fat according to the equation

$$Acceptable\ Body\ Fat = (Age \times 0.0667 - 1.3333) + 14\ (if\ said\ person\ is\ male);$$

$$Acceptable\ Body\ Fat = (Age \times 0.0667 - 1.3333) + 17\ (if\ said\ person\ is\ female);$$

calculating the person's excess body fat factor according to the equation

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Excess Body Fat Factor = % Body Fat − Acceptable Body Fat;

calculating the person's obesity factor according to the equation

Obesity Factor = (BMI Factor + Excess Body Fat Factor) / 2;

scaling said obesity factor according to the equation

Body Fat Scaler = [4 × (% Body Fat) − 28] × (Obesity Factor);

assigning an age value according to the equation

Age Value = Age − 59   (if (Age − 59) is greater than or equal to zero)

Age Value = 0   (if (Age − 59) is less than zero);

assigning a stroke family history value, said stroke family history value being equal to zero if said person has no family history of stroke, said stroke family history value being equal to 15 if said person has a family history of stroke;

assigning a diabetes family history value, said diabetes family history value being equal to zero if said person has no family history of diabetes, said diabetes family history value being equal to 5 if said person has a family history of diabetes;

assigning a smoking value, said smoking value being equal to zero if said person is not smoking, said smoking value being equal to 15 if said person is smoking;

assigning a gender value, said gender value being equal to zero if said person is female, said gender value being equal to 5 if said person is male;

assigning a blood pressure value, said blood pressure value being equal to zero if said person does not have high blood pressure, said blood pressure value being equal to 25 if said person has high blood pressure;

assigning an exercise value, said exercise value being equal to zero if said person is exercising, said exercise value being equal to 5 if said person is not exercising;

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assigning a cholesterol value, said cholesterol value being equal to zero if said person does not have high cholesterol, said cholesterol value being equal to 10 if said person has high cholesterol;

calculating said risk of stroke according to the equation

Stroke Risk = Age Value

+ Stroke Family History Value

+ Diabetes Family History Value

+ Smoking Value

+ Gender Value

+ Blood Pressure Value

+ Exercise Value

+ Cholesterol Value

+ Body Fat Scaler.

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